

Serial No.: 09/676,875  
Reply to Office Action of: May 6, 2003  
Atty. Docket No.: ECB-0004

### REMARKS

The Examiner will note that claim 1 has been amended as to the scope of the catalyst and stripping gas. Support for the stripping gas amendment may be found in the specification at page 5, lines 19-20.

Claim 1-4, 7, 9-11 and 13 were rejected as being unpatentable over Hatanaka et al. (U.S. 5,906,730) in view of Harandi (U.S. 5,554,275). For the reasons noted below and in view of the amended claim, this rejection is not well taken and should be withdrawn.

As the Examiner is aware, applicants' invention has two alternatives with regard to stripping gas and catalyst: (1) stripping gas is hydrogen and catalyst is a non-reducible metal oxide, and (2) stripping gas is an inert gas and catalyst is a Group VIII metal promoted by Group VIB metal.

The catalyst of Hatanaka contains a metal active for desulfurization on a porous inorganic oxide carrier. The metals include Cr, Mo, W, Co and Ni (col. 5, lines 15-31). The catalysts of Harandi are similar to those of Hatanaka, i.e., Co, Mo, Ni, etc., on an inert substrate such as alumina (col. 1, lines 47-51). The stripping gas contains hydrogen (col. 1, lines 37-38).

In alternative (1) of amended claim 1, when the stripping gas contains hydrogen, the catalyst consists essentially of a non-reducible metal oxide. Thus the amended claim in this alternative does not read on the active catalytic metals taught by Hatanaka or Harandi.

With regard to alternative (2) noted above, both Hatanaka and Harandi require the presence of hydrogen. In contrast, in applicants' amended claim 1, the stripping gas consists essentially of a non-hydrotreating vent gas when the catalysts contain a Group VIII/VIB metal. Thus the stripping gas in said alternative (2) does not read on hydrogen.

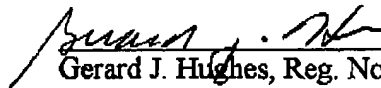
Serial No.: 09/676,875  
Reply to Office Action of: May 6, 2003  
Atty. Docket No.: ECB-0004

The Examiner's attention is directed to applicants' Example 1. When  $\gamma$ -alumina is used with hydrogen, conversion is 56% with no saturation of olefins.  $\gamma$ -alumina with nitrogen stripping gas results in rapid catalyst deactivation and almost no conversion. The CoMoS catalyst with hydrogen removes almost all the sulfur but results in undesirable saturation of olefins. But when CoMoS is used with nitrogen as stripping gas, there is a 95% conversion of mercaptan sulfur, no undesirable olefin saturation, and no catalyst deactivation.

For the reasons noted above and in view of the amended claims, it is urged that the rejection over Hatanaka in view of Harandi has been overcome and the case is now in condition to be allowed. Favorable action is solicited. The Examiner is encouraged to contact applicants' attorney should the Examiner wish to discuss this application further.

Respectfully submitted:

Date: 27 June 2003

  
Gerard J. Hughes, Reg. No. 41,855  
Attorney for Applicants  
Telephone No.: (225) 977-4942  
Facsimile No.: (225) 977-1025

*Correspondence Address:*  
ExxonMobil Research and Engineering Company  
P. O. Box 900  
Annandale, New Jersey 08801-0900

**Exxon Mobil Corporation**  
1545 Route 22 East  
P.O. Box 900  
Annandale, New Jersey 08801-0900  
908 730 3613 Telephone  
908 730 3603 Facsimile

**Michael A. Nametz**  
Chief Attorney  
Research and Engineering

**ExxonMobil**

March 19, 2003

Honorable Commissioner  
Patent and Trademark Office  
U.S. Department of Commerce  
Washington, D.C. 20231

Sir:

This letter is written to notify you that ExxonMobil Research and Engineering Company (EMRE) has delegated certain signatory authority in connection with patent prosecution before the United States Patent and Trademark Office. Enclosed herewith is a true original copy of a letter dated March 19, 2003, formally making the delegations.

It is requested that the attached authorization be filed in the Patent and Trademark Office for reference in verifying the delegation of this authority to the designated individuals. It supersedes a similar authorization dated August 20, 2002, filed in your office.

Very truly yours,



MAN:dws  
031903A  
Attachment

ExxonMobil Research  
and Engineering Company  
1545 Route 22 East, P. O. Box 900  
Annandale, NJ 08801-0900

# ExxonMobil

*Research and  
Engineering*

March 19, 2003

Honorable Commissioner of  
Patents and Trademarks  
U.S. Patent and Trademark Office  
U.S. Department of Commerce  
Washington, D.C. 20231



27810

PATENT TRADEMARK OFFICE

Sir:

Pursuant to the authority delegated to me by the President of ExxonMobil Research and Engineering Company ("EMRE") (Customer No. 27810), I, Michael A. Nametz, hereby delegate to the following individuals (registration numbers in parentheses):

Leandro Arechederra	(52,457)	Louis N. Moreno	(44,953)
Estelle C. Bakun	(35,054)	William G. Muller	(32,281)
Catherine L. Bell	(35,444)	Jack B. Murray	(26,776)
Keith A. Bell	(30,023)	Michael A. Nametz	(28,452)
Charles J. Brumlik	(42,367)	Richard F. Phillips	(30,097)
Douglas J. Collins	(43,561)	J. Paul Plummer	(40,775)
Michael A. Cromwell	(42,449)	Stephen D. Prodnuk	(43,020)
Carl M. Fick	(33,383)	Tom F. Pruitt	(30,317)
Norby L. Foss	(47,571)	Paul E. Purwin	(29,203)
George B. Georgellis	(43,632)	Frank E. Reid	(37,918)
Andrew B. Griffis	(36,336)	Dennis P. Santini	(26,029)
Ronald D. Hantman	(27,796)	C. Paige Schmidt	(38,556)
Gerald L. Harris	(36,158)	Linda M. Scuzo	(36,001)
Marcy M. Hoefling	(33,955)	Jaimes Sher	(34,726)
Gerald J. Hughes	(41,855)	Edward F. Sherer	(29,588)
John F. Hunt	(29,394)	Charles E. Smith	(32,085)
Ricky F. James	(48,772)	Darryl M. Tyus	(40,853)
Gary P. Katz	(46,099)	Ramesh Varadaraj	(48,010)
Malcolm D. Keen	(27,728)	Maria C. Walsh	(37,958)
Bradley A. Keller	(37,654)	Joseph C. Wang	(44,391)
Jeremy J. Kliebert	(48,227)	Darrell Warner	(36,046)
Linda Kubena	(42,772)	Erika S. Wilson	(52,368)
Gary D. Lawson	(27,696)	Pamela L. Wilson	(32,865)
Lucinda Lomas	(51,964)	Denise Y. Wolfs	(32,074)
Paul T. LaVoie	(38,681)	Phillip G. Woo	(45,234)
Mark D. Marin	(50,842)	James A. Zboray	(35,420)
Mandi B. Milbank	(50,853)		

An ExxonMobil Subsidiary

March 19, 2003

Page 2

the authority, without any additional approval by the President, to sign on behalf of EMRE as assignee the following documents incidental to patent prosecution before the Patent and Trademark Office and before the International Patent Examining Authority:

1. Appointment and revocation of powers of attorney;
2. Oath or Declaration filed on behalf of EMRE, or on behalf of an inventor when the inventor is not available to sign;
3. Assent of EMRE to file a reissue application;
4. Assent of EMRE to file an express abandonment;
5. Disclaimer or dedication by EMRE of one or more patent claims or of any terminal portion of the term of a patent;
6. In the case of interference proceedings, to make preliminary statements on behalf of an applicant or patentee, and to consent to concessions of priority, disclaimers of invention, and abandonments of contest, on behalf of EMRE;
7. Consent of EMRE to the addition, removal or change of inventors in patents or patent applications;
8. Statements required pursuant to 37 CFR 3.73(b).

Where required by the nature of the document executed pursuant to this delegation, the Secretary and any Assistant Secretary of EMRE are hereby authorized to affix EMRE's seal on and attest to the foregoing documents.

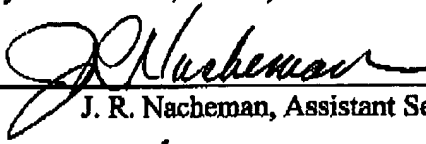
The signature by any individual or incumbent listed above and the affixing of EMRE's seal where required shall constitute complete and formal execution of the document by EMRE.

EXXONMOBIL RESEARCH AND ENGINEERING COMPANY

By   
M. A. Nametz, Secretary

Date March 20, 2003

I hereby certify that M. A. Nametz, who has signed the above delegation of authority, is a lawful representative of EMRE and is authorized to execute this document on behalf of EMRE, which has a place of business in Annandale, New Jersey (Post Office Address: P.O. Box 900, Annandale, New Jersey 08801-0900, U.S.A.)

By   
J. R. Nacheman, Assistant Secretary

Date March 21, 2003

(SEAL)  
(031903B.doc)